

A NEW SPECIES OF *DAPHNOPSIS* (THYMELAEACEAE)
FROM BAJA CALIFORNIA SUR, MEXICO

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ABSTRACT

Daphnopsis lagunae, a new species from the highest ridges of the Sierra de la Laguna, Baja California Sur, Mexico, is described. This is a locally restricted species which is the first record for the genus and the family (Thymelaeaceae) for the peninsula of Baja California.

RESUMEN

Se describe una nueva especie de los picachos de la Sierra de la Laguna, Baja California Sur, Mexico: ***Daphnopsis lagunae***. Se trata de una especie con habitat sumamente restringido, es tambien la unica representante del genero y de la familia (Thymelaeaceae) para la peninsula de Baja California.

Fruiting specimens of this *Daphnopsis* were first collected by M. E. Jones in 1930. Subsequently, Breedlove and Axelrod in 1977 and León de la Luz in 1985 made several additional fruiting collections. Although the plant was obviously related to *Daphnopsis* no attempt could be made to further identify it without flowers. León de la Luz, in the course of his studies on the vegetation of the Sierra de la Laguna (León de la Luz and Domínguez 1989), returned to the region three times in spring and summer and finally collected flowering plants in mid-August of 1987 immediately following the first summer rains. It is a curious aside that T. S. Brandegee, who made exhaustive collections in the Sierra de la Laguna at the end of the last century, never encountered this distinctive shrub. A search of the herbarium at the University of California, where the major set of T. S. Brandegee's collections are deposited, was made to no avail. The short period of anthesis which occurs for 6 to 10 days following the inception of the erratic summer rains and the very local nature of this plants distribution best accounts for its absence from his collection. *Daphnopsis lagunae* is the only member of the Thymelaeaceae known from Baja California (Wiggins 1980). *Daphnopsis* is the largest genus, with about 50 species, in the family in the New

World and has three areas with concentrations of species, Mexico, the Antilles and Brazil (Nevling, 1959).

Daphnopsis lagunae Breedlove & León de la Luz, sp. nov. (Fig. 1).—

TYPE: MEXICO. Baja California Sur: Municipio of La Paz, Sierra de la Laguna, Pine Oak forest along trail from La Laguna to El Picacho, 1900 m, 23°31'N, 110°02'W, 14 Aug 1987 (female plant), *León de la Luz 2730* (holotype Cas; isotypes CIB, UC, MEXU).

Frutex deciduus usque ad 1.5 m altus. Folia coriacea, 4–8 cm longa, 2–5 cm lata, margine revoluta. Inflorescentiae pistillatae et stamineae portatae in pedunculi 1–5 mm longa cum 1–5 floribus. Flores staminales cum calycis tubus anguste obconicus, 6.5–7 mm longa, 1–1.5 mm lata basi, 3.5–4 mm lata orificii, extra tomentosus, intus glaber, petala 8, circa 0.3 mm longa, staminibus in planus 2, disco annulari. Flores pistillates cum calycis tubus 5–6 mm longa, 1.5–2 mm lata basi, 2–2.5 mm lata orificii.

Deciduous, sparsely branched, dioecious shrubs to 1.5 m tall, young branches appressed tomentose. Leaves alternate, estipulate, sessile, coriaceous, 4–8 cm long, 2–5 cm wide, elliptic to lanceolate, glabrous to appressed tomentulose; apex acute to rounded; base cuneate to rounded; margins entire and revolute; venation pinnate with 8–10 ascending primary veins, secondary veins prominently reticulate and partially obscuring the primary veins, midvein prominent beneath, all veins reddish brown on the under surface, immersed and lightly differentiated on the upper surface. Inflorescence an umbel borne from leafy stems of recent growth, rachis appressed pubescent. Staminate inflorescence with the peduncle 8–12 mm long; staminate flowers 2–3(–5) per inflorescence; pedicel 0.5–1 mm long; calyx tube narrowly obconic, 6.5–7 mm long, 1–1.5 mm broad at base, 3.5–4 mm broad at orifice, appressed tomentose outside, glabrous within; calyx lobes unequal, puberulent within, the outer lobes 2 mm long, 1.5 mm broad at base, the inner lobes 2 mm long, 1 mm broad at base, all acute; petals 8, papilliform, about 0.3 mm long, inserted above and to each side of the 4 alternisepalous stamens; stamens 8, inserted at 2 levels; antisepalous stamens inserted at the level of the orifice, exerted; alternisepalous stamens inserted 1 mm below the orifice, included; filaments 0.2 mm long; anthers oblong-ovate, 0.7–1 mm long, 0.3–0.5 mm broad; disc annular, irregularly adnate to the calyx tube base, undulate to irregularly lobed, glabrous, free marginally; pistillode ten pin shaped, 0.7–1.5 mm long, glabrous. Pistillate inflorescences with the peduncles 5–12 mm long; pistillate flowers 1–4 per inflorescence; pedicels 4–6 mm long; calyx tube obconic to narrowly campanulate, 5–6 mm long, 1.5–2 mm broad at the base, 2–2.5 mm broad at orifice, ap-

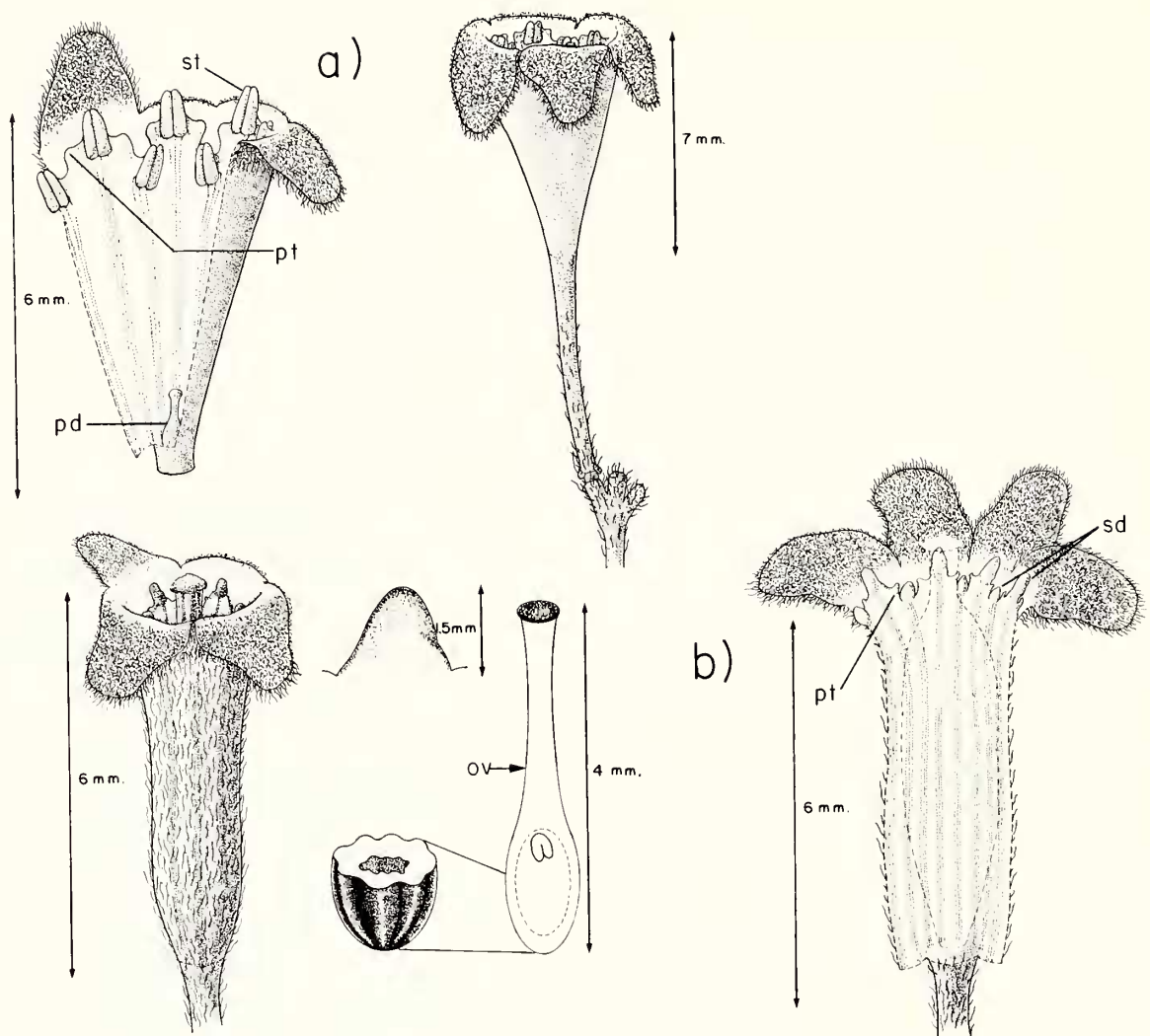
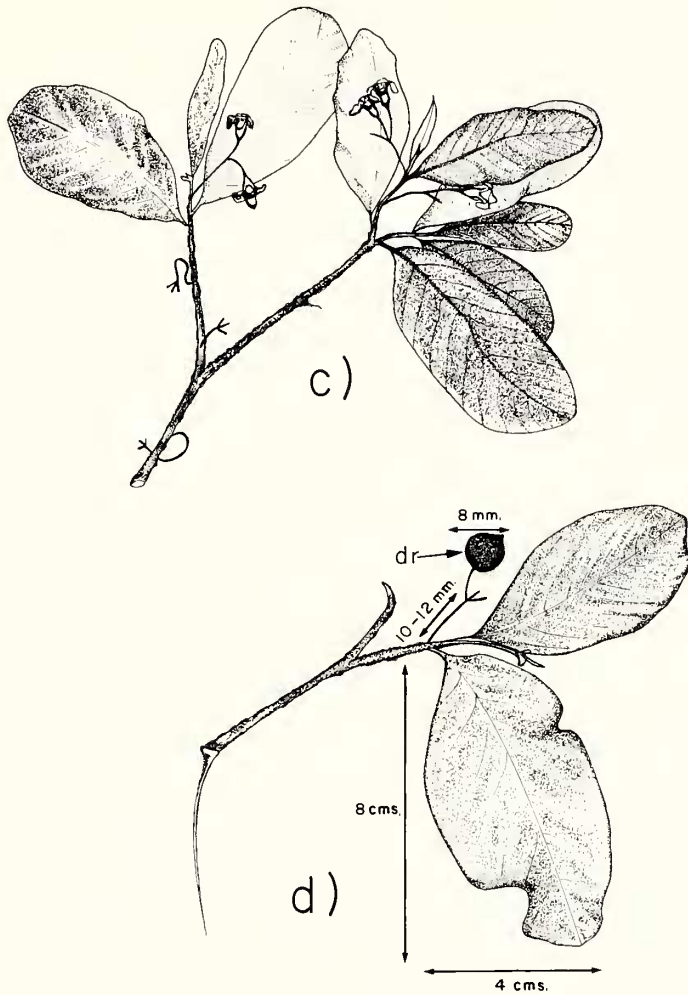


FIG. 1. *Daphnopsis lagunae* Breedlove & León de la Luz a, Staminate flower: (pd) pistillode, (pt) petal, (st) stamen. b, Pistillate flower: (ov) ovary, (pt) petal, (sd) stam-

pressed tomentose outside, glabrous within; calyx lobes subequal, 1–1.5 mm long, 1–1.5 mm broad at the base, puberulent within, apex acute; petals 8, papilliform; staminodia 8, papilliform, difficult to distinguish from the petals; pistil 5.5–6.5 mm long, the stigma capitate, exserted. Drupe ovoid, 8–11 mm long, apiculate, 1–4 maturing per inflorescence, calyx persistent. Seed smooth, brown, spherical, 4–6 mm across; hilum a small depressed black dot on the proximal end.

Paratypes MEXICO, Baja California Sur, type locality: 30 Oct 1985, Domínguez 37 (CAS, CIB) fruit; 12 Aug 1987, León de la Luz 2678 (CAS, CIB) male; León de la Luz 2679 (CAS, CIB) female; 14 Aug 1987, León de la Luz 2731 (CAS, CIB) female. Trail from La Burrera to La Laguna: 24 Sep 1930, M. E. Jones 27276 (CAS) fruit; 22 Oct 1977, Breedlove and Axelrod 43308 (CAS) fruit, Breedlove and Axelrod 43376 (CAS) fruit, 14 Aug 1987, León de la Luz 2677 (CAS, CIB) male; León de la Luz 2732 (CAS, CIB) male; 28 Aug 1987, León de la Luz 2817 (CAS, CIB) female. Cerro Verde: 12 Sep 1986, León de la Luz 2032 (CAS, CIB) fruit.



inode. c, branch in flower. d, branch in fruit. Floral tube drawings by Colleen Sudekum, habit and ovary drawn by J. L. León de la Luz.

Distribution. Known from three populations in the Sierra de la Laguna. The largest population occurs near the summit of El Picacho (2000 to 2150 m) and extends south as scattered individuals along the ridge facing the Pacific Ocean to at least the point where the trail from La Burrera crosses to La Laguna where a second large population exists. A small population with only a few plants has been found near the summit of El Cerro Verde.

Habitat. All of the populations occur on unstable, rocky, granitic soils in both shaded and exposed situations on steep slopes or on relatively flat ridge tops. The associated species include: *Arbutus peninsularis* Rose & Goldman, *Arracacia brandegeii* Britton & Rose, *Bernardia lagunensis* (M. E. Jones) Wheeler, *Calliandra peninsularis* Rose, *Cyclanthera tamnoides* Cogn., *Helianthus similis* (Brandege) S. F. Blake, *Lepechinia hastata* (A. Gray) Epling, *Mimosa xantii* A. Gray, *Mirabilis jalapa* L., *Nolina beldingii* Brandege, *Pinus lagunae* (Passini & Bailey) Passini, *Quercus devia* Goldman, *Quercus tuberculata* Liebm., *Tagetes lacera* Brandege, *Tephrosia canna* Brandege, *Verbesina pustulata* M. E. Jones, and others.

DISCUSSION

Nevling (1959) in his excellent revision of the genus *Daphnopsis* does not delimit species groups as such and states that species that have the same level of development of petal type may or may not be related. *Daphnopsis lagunae* with eight petals and a few-flowered inflorescence seems morphologically distant from the species that is closest geographically, *D. mexiae* Nevling of Nayarit and Sinaloa, which has the petals connate into a faucal annulus and an umbellate inflorescence with up to 55 flowers. Of the seven species with eight petals, one from the Antilles, three from northern South America and three from Mexico, most are from wet forest locations and none share three or more of the key characters used by Nevling. *Daphnopsis lagunae* appears to be unique within the genus. Its markedly deciduous habit, few-flowered inflorescence and eight petals clearly set it apart from other species.

ACKNOWLEDGMENTS

The authors wish to express special thanks to Annetta Carter for her encouragement and advice in the preparation of this manuscript. Dr. Arturo Gomez-Pompa, Director of the UC MEXUS Program, provided support for León de la Luz to visit the herbaria of the University of California and the California Academy of Sciences to begin this study. This research has been partially funded by a grant from CONACYT-SPP, Mexico.

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(Received 9 May 1989; revision accepted 28 Aug 1989.)

ANNOUNCEMENT

NEW PUBLICATION

GOODRICH, S. and E. NEESE, *Uinta Basin flora*, USDA Forest Service—Intermountain Region, Ogden, UT, 1986, [iii], xvii, 320 pp., 1 foldout map, unillus., no ISBN, paperbound, price unknown. [Reproduced from single-spaced camera-ready copy. On ca. 1660 specific and sub-specific taxa from a ca. 40,000 km² area in Utah and Colorado. For review see J. Major, *Fremontia* 15(4):30.]